Using VDOMs to host two FortiOS instances on a single FortiGate unit

Virtual Domains (VDOMs) can be used to divide a single FortiGate unit into two or more virtual instances of FortiOS that function as independent FortiGate units. This example simulates an ISP that provides Company A and Company B with distinct Internet services. Each company has its own VDOM, IP address, and internal network.

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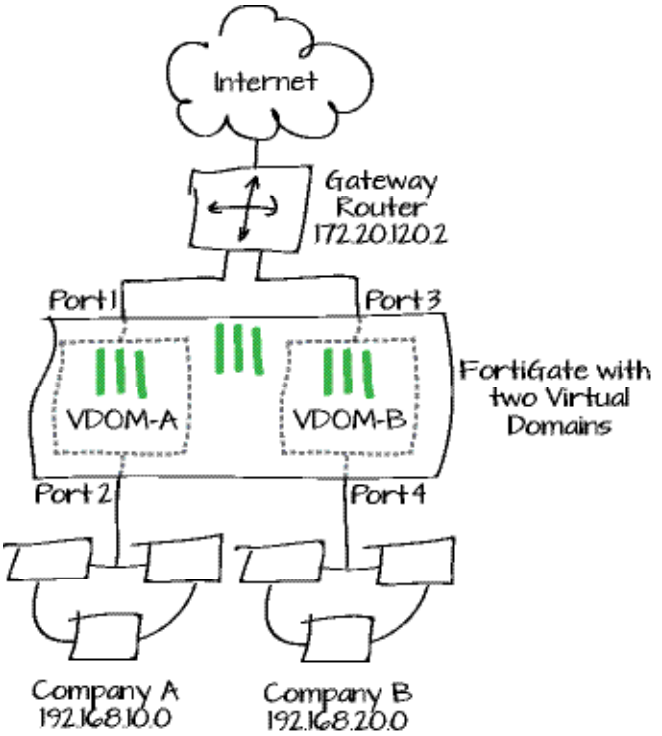
3. Creating administrators for each VDOM
4. Creating a basic configuration for VDOM-A
5. Creating a basic configuration for VDOM-B
6. Connecting the gateway router
7. Results

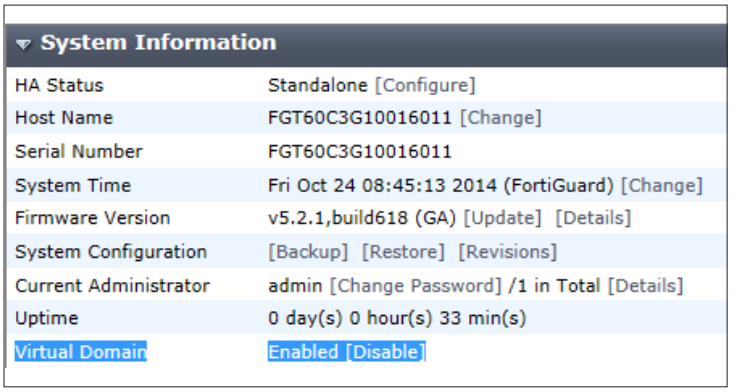


1. Switching to VDOM mode and creating two VDOMS

Go to **System > Dashboard > Status**.

In the **System Information** widget, find **Virtual Domain** and select **Enable**.

You will be required to re-login after enabling **Virtual Domain** due to the GUI menu options changing.



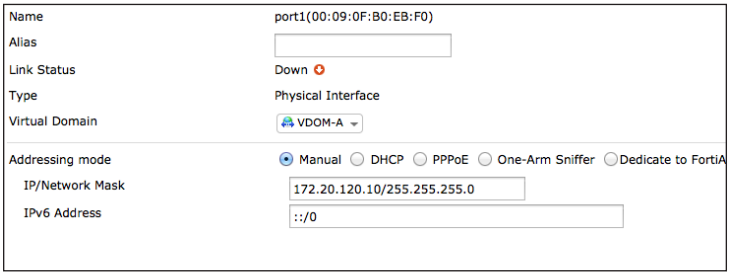
Go to **Global > VDOM > VDOM**.

Create two VDOMS: *VDOM-A* and *VDOM-B*. Leave both VDOMs as **Enabled**, with **Operation Mode** set to **NAT**.

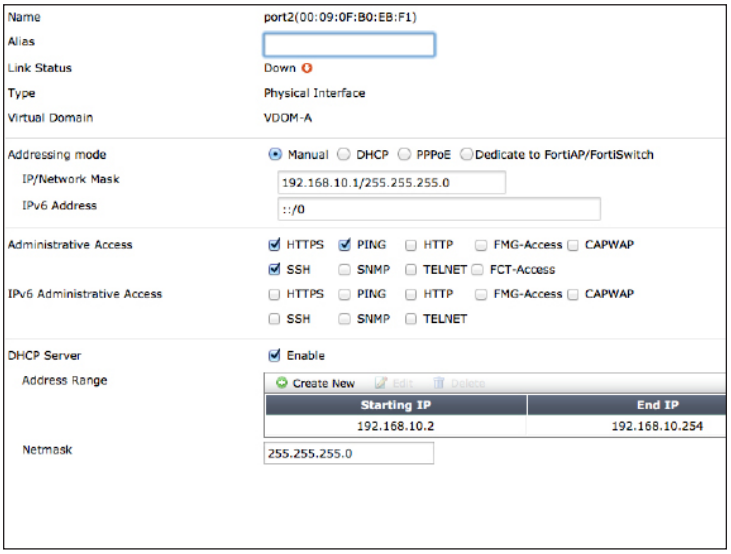
2. Assigning interfaces to each VDOM

Go to **Global > Network > Interfaces**.

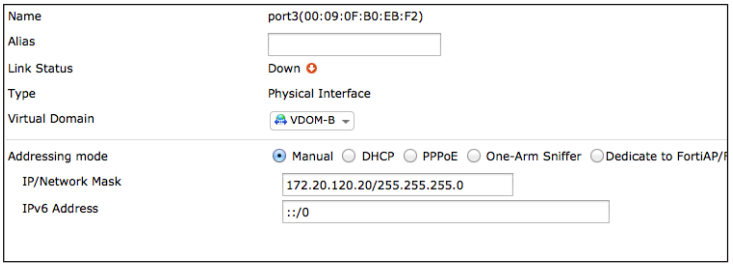
Edit **port1** and add it to VDOM-A. Set **Addressing Mode** to **Manual** and assign an **IP/Network Mask** to the interface (in the example, *172.20.120.10/255.255.255.0*).



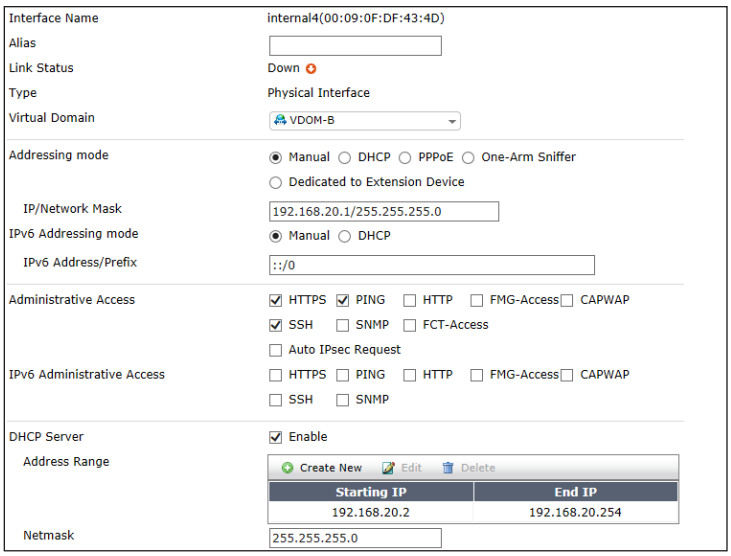
Edit **port2** and add it to VDOM-A. Set **Addressing Mode** to **Manual,** assign an **IP/Network Mask** to the interface (in the example, *192.168.10.1/255.255.255.0*), and set **Administrative Access** to **HTTPS, PING**, and **SSH**. Enable **DHCP Server.**



Edit **port3** and add it to VDOM-B. Set **Addressing Mode** to **Manual** and assign an **IP/Network Mask** to the interface (in the example, *172.20.120.20/255.255.255.0*).



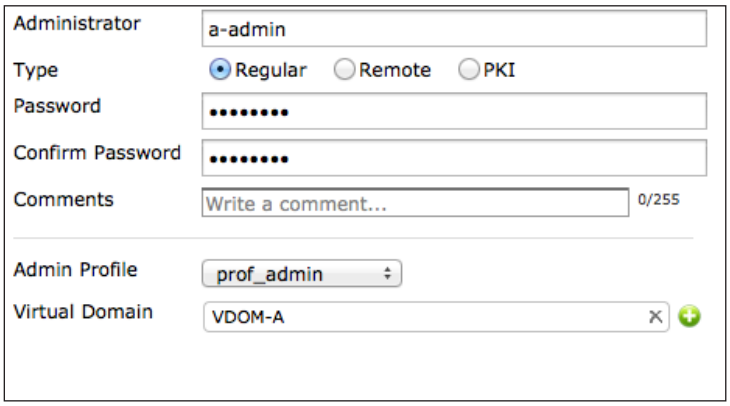
Edit **port4** and add it to VDOM-B. Set **Addressing Mode** to **Manual**, assign an **IP/Network Mask** to the interface (in the example, *192.168.20.1/255.255.255.0*), and set **Administrative Access** to **HTTPS**, **PING**, and **SSH**. Enable *DHCP Server*.



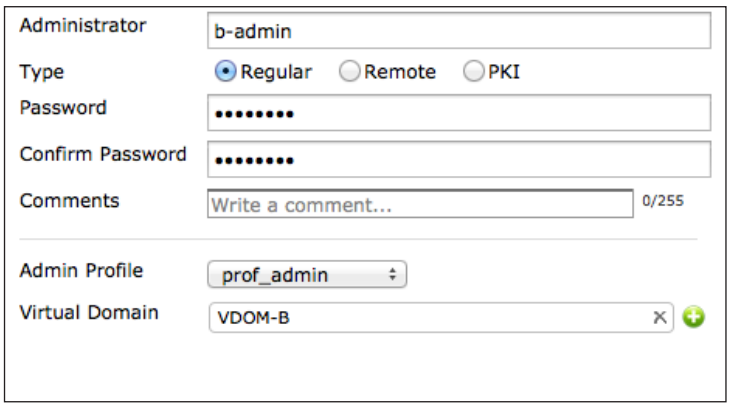
3. Creating administrators for each VDOM

Go to **Global > Admin > Administrators**.

Create an administrators for VDOM-A, called *a-admin*. Set **Type** to **Regular**, set a password, and set **Admin Profile** to **prof_admin**.



Create an administrators for VDOM-B, called *b-admin*. Set **Type** to **Regular**, set a password, and set **Admin Profile** to **prof_admin**.



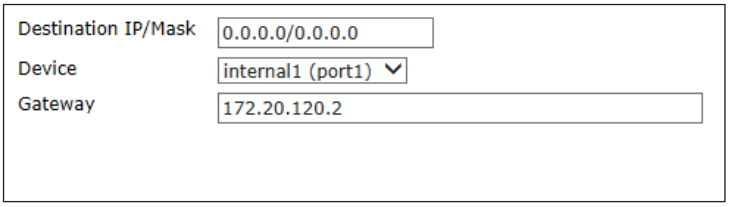
Make sure to remove the **root** VDOM from both administrator accounts.

4. Creating a basic configuration for VDOM-A

Go to **Virtual Domains** and select **VDOM-A**.

Go to **System > Network > Routing**.

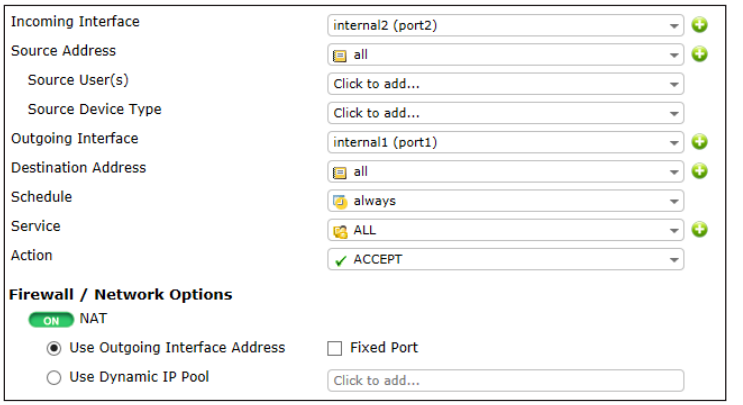
Create a default route for the VDOM. Set **Destination IP/Mask** to *0.0.0.0/0.0.0.0*, set **Device** to **port1**, and set **Gateway** to the IP of the gateway router (in the example, *172.20.120.2*).



Connect a PC to port2. Using HTTPS protocol, browse to the IP set for port2 and log into VDOM-A using the a-admin account (in the example, *192.168.10.1*).

Go to **Policy & Objects > Policy > IPv4**

Create a policy to allow Internet access. Set **Incoming Interface** to **port2** and **Outgoing Interface** to **port1**. Ensure **NAT** is turned **On**.



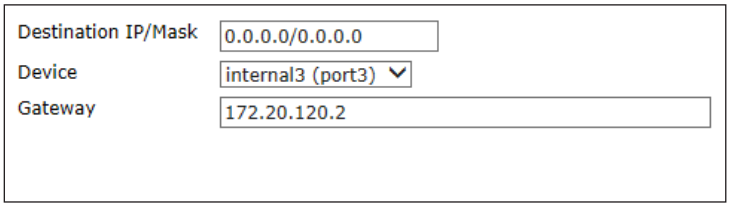
5. Creating a basic configuration for VDOM-B

If you have logged out o the FortiGate unit, log back in.

Go to **Virtual Domains** and select **VDOM-B**.

Go to **System > Network > Routing**

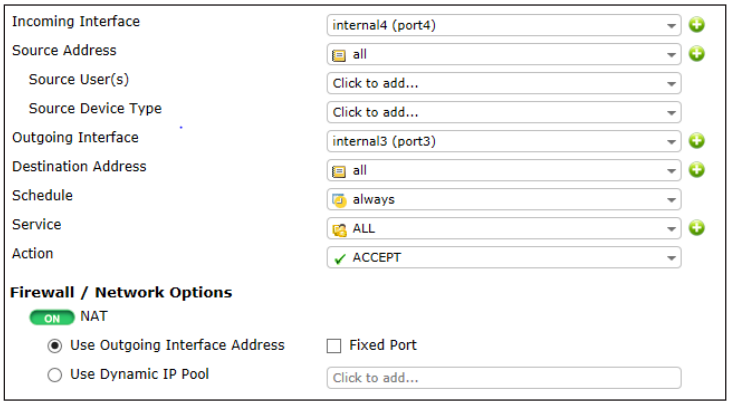
Create a default route for the VDOM. Set **Destination IP/Mask** to *0.0.0.0/0.0.0.0*, set **Device** to **port3**, and set **Gateway** to the IP of the gateway router (in the example, *172.20.120.2*).



Connect a PC to port4. Using HTTPS protocol, browse to the IP set for port4 and log into VDOM-B using the a-admin account (in the example, *https://192.168.10.1*).

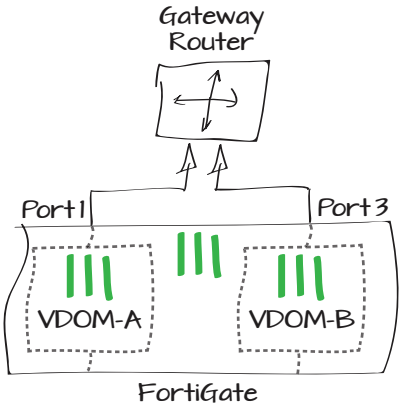
Go to **Policy & Objects > Policy > IPv4**

Create a policy to allow Internet access. Set **Incoming Interface** to **port2** and **Outgoing Interface** to **port1**. Ensure **NAT** is turned **On**.



6. Connecting the gateway router

Connect port 1 and port3 of the FortiGate unit to the gateway router to allow Internet traffic to flow.

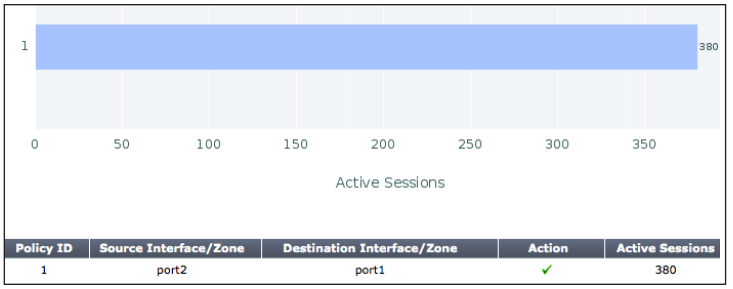


7. Results

Connect to the Internet from the company A and company B networks and then log into the FortiGate unit

Go to **Virtual Domains** and select **VDOM-A**.

Go to **Policy & Objects > Monitor > Policy Monitor** to view the sessions being processed on VDOM-A.



Go to **Policy & Objects > Monitor > Policy Monitor** to view the sessions being processed on VDOM-B.